

COST *and* MANAGEMENT

THE OFFICIAL JOURNAL OF
THE CANADIAN SOCIETY OF
COST ACCOUNTANTS & INDUSTRIAL ENGINEERS

INCORPORATED 1920

HEADQUARTERS, 81 VICTORIA STREET, TORONTO

Telephone ELgin 8914

Vol. 8	FEBRUARY, 1933	No. 2
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Subscription price to non-members, \$5 a year. Single copies 50 cents.
Members desiring 5 copies or more of a single issue may obtain them
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Unemployment Insurance and Employment Assurance

BY R. DAWSON

(The Hoover Company, Ltd.)

(Before Hamilton Chapter, October 5, 1932)

BEFORE commencing this talk let me first of all disavow any pretensions whatever to either socialistic or political tendencies. My purpose is solely to show a real need for unemployment insurance coupled with some form of employment assurance or guaranteed employment.

We are living today in the midst of perhaps the worst depression known to industry, certainly to modern industry. There are many reasons given for the cause of this depression, among them being the late World War, the orgy of over speculation and unwise expansion following the post war slump of 1921, the Wall Street crash, the machine age and many others. Economists are certainly not agreed as to the real cause or causes of the depression nor are they agreed as to how to end it or the probable date as to when it will end. All kinds of wild guesses have been made by these gentlemen as to the probable date when the world will see the silver lining and although it does seem that signs are not wanting that business generally is showing faint signs of improvement, it is inevitable that business conditions generally will take considerable time before they return to anything approaching normalcy.

In the early days of this depression, many optimistic gentlemen referred to it as nothing more than a buyer's strike and intimated that a return of confidence was all that was required to place business definitely on the upgrade. While, in the very broad sense of the term, this fact may have been to some extent true, it did not take close students of economics long to see a little further than this and to realize that it was one thing to talk glibly about a return of confidence but an entirely different and much more difficult thing to bring about a return of confidence. Economists to-day realize that the world is very sick and that new treatments are needed to restore the world to health and to normalcy but they are not agreed entirely as to what these treatments should consist of. It is generally agreed that modern industry has progressed so far and so fast that, at its normal gait, the world can be provided for in far less than what we previously considered the normal working day or week and very recently there has been considerable talk of a reduction in the hours of labor per day and the number of working days per week.

My own opinion is that there has been far too little concerted action along these lines. To a large extent industry has concentrated its efforts rather on licking the depression from its own particular viewpoint by cutting costs, reducing wages and salaries and generally reducing the purchasing power of the worker in the hope that by so doing they would keep out of the red on a much smaller production or by a reduction in selling costs would retain their markets, and as a result commodity prices have declined to a level altogether out of proportion to their value. To-day industry is beginning to realize that generally speaking, these efforts have been more or less futile

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and that something vastly different is needed if business is to be placed once more on a firm and sound foundation.

We are undoubtedly faced with the fact that unless the hours of labor of the worker are reduced per day and the number of days per week are also reduced there will always be a large percentage of able and willing workers unable to find employment. Such a reduction would undoubtedly assist materially in a return to normalcy but while every effort should be made to adopt such a system wherever possible it alone would not be sufficient to bring back normal conditions. I have previously referred to what some so-called economists were wont to refer to as a buyer's strike, but from a buyer's strike it had advanced so far that we now see the complete inability of the worker to buy due to sadly reduced, in most cases, and in many cases to a complete lack of income. Thousands of decent, respectable workers and their families have exhausted their savings and have been forced to accept meagre relief from municipal authorities. Thousands have lost their homes and are the recipients of charity in many forms. In short, thousands, through no fault of their own, are little more than paupers when they have every right to be decent, respectable and contented citizens.

Taxes, municipal, provincial and federal, are mounting to an alarming extent and it is evident that the present plans to cope with unemployment and its resultant poverty, are totally inadequate. No plan of unemployment insurance put into operation at this time would be of much assistance in the present depression. Rather should we see to it that, in the future, unemployment is materially reduced and its effects minimized so far as possible. Contrary to popular beliefs, there are many systems of unemployment insurance in operation in various parts of the world, but only recently has the matter of employment assurance been really considered in connection with unemployment insurance.

To my mind these two things go, or should go, together and unemployment insurance is something which should only go into effect when every means of stabilization in order to assure employment has failed. Industry can be stabilized and employment assured. The Proctor and Gamble Co. plan has proved this assertion, so has the Leeds, Northrop plan and many others. Indeed when the Forbes Magazine offered money prizes for the best Employee plans submitted in 1930, there were over 400 plans submitted.

To my mind the weakness of the unemployment insurance plan adopted in Great Britain and a more or less similar plan in operation in Germany is that these plans are purely insurance plans and make no provision whatever for stabilization of industry and in fact it is apparent in many cases that employers have assisted employees in obtaining benefits they were not strictly entitled to under the Act.

The British System

The British Unemployment Insurance Act was the first national compulsory plan ever introduced and was adopted in 1911. The original act included only a few industries covering about 2,250,000 workers, but after a few enlargements, the scope was greatly expanded in 1920 so as to include almost the entire working population with the exception of agricultural labourers and those engaged in domestic service.

To-day over twelve million workers are insured under the scheme. Briefly, the plan is that both employee and employer pay each week a similar sum and the treasury add a smaller sum. A card is provided the employee and this card is stamped with each payment. In

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the event of a lay-off the worker is handed his card which he in turn takes to a National Labor Bureau and reports as unemployed. Similarly the employer reports to the Labor Bureau the fact of the lay-off and the reason. In fact all particulars concerning the man laid off is handed to the Bureau. If the Bureau cannot find the man suitable employment and he is unemployed for a short period he is entitled to benefit, provided he meets the stipulations as to contributions he has made to the fund.

Undoubtedly there are serious defects in the British system. It has been amended from time to time, chiefly according to which political party was in power and to a large extent has become somewhat of a political football.

In the original plan, there were two provisions designed to encourage and reward the stabilization of employment. When a worker attained the age of sixty, any excess of his personal contributions paid over the benefits he had received, were refunded, with interest at 2½%. There was also a refund arrangement for employers, with good employment experience in the preceding year.

These two features were never greatly stressed, and when the fund began to run into debt, they were abolished as a supposed economy. Thus at the present time there is no incentive for either employer or employee to try to protect the solvency of the fund, and many abuses have arisen, most of which are quite legal, within the strict interpretation of the law. Contributions have not always kept pace with increased benefits granted and due to increased unemployment at the present time there is a huge deficit which has earned for the system the name "Dole".

The German System

There are two fundamental differences between the systems of Great Britain and Germany. In England the flat rate system of contributions and benefits is in operation. In Germany however, both contributions and benefits are on a percentage of salary system. When the Act was inaugurated in 1927 the contribution was 3% of the payroll divided equally between employer and employee. The benefits are graded according to salary classes, ranging from 75% in the low wage class to 35% in the high wage class.

Again in Germany the government makes no contribution normally to the fund and in times of stress does not lend money freely as in England, but subsidizes the fund only to one half its deficit and specifies that the other half must be met by increased contributions or decreased benefits. The general eligibility is much the same under both systems but in England while Parliament directs the work, the Minister of Labor being directly responsible to it, in Germany a separate corporation manages the work comparatively free from political interference.

Other Plans

In addition to the British and German plans which typify the compulsory system of unemployment insurance, there is the voluntary plan which is in operation in Belgium, Denmark, Norway and Switzerland.

In these countries, unemployment insurance is of a purely voluntary nature and government participation is usually limited to subsidizing private funds that meet certain requirements. The private nature of these funds assures comparative freedom from political controversy but, as in all other systems, the magnitude of the present depression has caused a certain amount of agitation for an increased

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amount of government participation and control and the voluntary nature of these systems is seriously threatened. At that, the present depression has threatened our whole economic structure so why point to these various systems as failures under present conditions particularly? Failures, so far as their solvency is concerned in these depressing times, they may be, but these various systems have provided millions of unemployed with at least sufficient to keep body and soul together and in that regard certainly cannot be measured as failures.

The British system in particular has often been preferred to in contemptuous tones as the "dole". I don't like the word "dole". It implies contempt for the recipient. Webster interprets the words as meaning: "A charitable gift of measured amount or to deal out in niggardly quantities". Benefits received through a contributory insurance scheme cannot be called charity, but rather does this apply to our own inadequate system of municipal relief. Take a simple illustration. If anyone of us here took out an accident insurance policy and later suffered a broken leg, would anyone of us have any qualms about receiving insurance benefits? I venture to say not one. Why should we? The trouble seems to be in certain minds that most of these schemes are compulsory government schemes and therefore something to be avoided. Certainly under any plan steps should be taken to preserve the solvency of the fund at all times but are there any other countries in the world that have undergone the trying times of Britain and Germany with regard to unemployment over a lengthy period?

The Swope Plan

In the United States and Canada there seems to be in some quarters a perfect horror of unemployment insurance but in recent times many plans have been adopted or suggested under more or less private control. One plan that leaps prominently before the mind is that suggested by Gerrard Swope, President of the General Electric Co., of Schenectady. This plan is really three distinct plans involving an unemployment insurance plan, a life and disability insurance plan and a pension plan, each separate plan involves the payment by both employer and employee of one per cent. of the employee's wages. The life and disability plan provides for a \$5000 policy payable at death or total disablement. The pension plan provides for a retiring allowance at the retiring age of approximately one half pay. The unemployed insurance plan provides for a payment of 50% of the employee's average wage after two weeks idleness. Such payments shall not continue for any longer than ten weeks in any twelve consecutive months unless sanctioned by the Board of Control. An employee earning less than half pay because of slackness shall have his pay brought up to the maximum he would be entitled to under the fund.

The plan provides for the existence of various trade associations and in the event of any employee leaving one firm to be employed by another in the same or any other association, the amounts standing to his credit in the various funds together with interest at the average rate earned by these funds shall be transferred to his credit with his new employer. But should he go to an employer not a member of a trade association these amounts shall be given to him.

The weakness of this plan as I see it is that it is purely optional whether a firm joins a trade association or not. One inducement set forth for firms to join these trade associations would be for the amounts paid by the firms under the various plans to be deducted from their income tax.

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If a company so plans its work that it is able to reduce unemployment, when the amount of the company's credit in the unemployment fund is to equal 5% of the normal earnings of the employees covered, the company will cease making payments to the fund until its credit is below the 5% mentioned.

The Rochester Plan

The unemployment insurance plan in operation in the City of Rochester, N. Y., has received considerable attention during recent months. This plan merits attention if for no other reason than that it has achieved considerable success in the matter of stabilization. Perhaps I can do no better than quote some remarks of Mr. A. E. Crockett, Manager of the Rochester Industrial Management Council. In a paper read before the National Association of Commercial Organization Secretaries at Toledo in October 1931, Mr. Crockett said in part:

"This word 'stabilization' began to be heard as something new, and as a cure for the condition we were in. It became a slogan. It was like a banner for us to march behind, crusading against unemployment. We analyzed the word, and when we began to appreciate its meaning, we undertook a complete investigation to learn what stabilization had been attempted in Rochester industries, what obstacles had been encountered, and what results had been achieved. We found they had to fight against seasonal trade demands, a hand-to-mouth buying, the tendency of inventories to go obsolete, and style changes. We found that they were forecasting sales, scheduling production, manufacturing to stock, standardizing product, diversifying product, battling waste, training employees, increasing the intensity of sales effort and contacting more frequently with the buyer, instituting the deferred delivery plan for the speculative buyer and giving concessions to the off-season buyer. They were doing their best, too, to educate the public against seasonal buying.

"Our figures on stabilization were received from 69 companies employing 41,000 persons. We found that 18 of the 69 were able to budget six months in advance, that 16 scheduled production budgets on an approximately equal monthly basis throughout the year. Thirteen had been inducing customers to take instalment shipments. Thirteen had extended their budgeting to their sales force and were offering incentives for off-season quotas. Eleven had developed other products for off-season production.

"We learned, for instance, that stabilization efforts over a number of years in Eastman Kodak Company, at Kodak Park, had reduced employment fluctuations of 9.6 per cent. from average to less than one per cent. fluctuation in 1929—with a 50% fluctuation in sales still in-correctable. Among the means used were forecasting sales, budgeting production total six months and twelve months in advance with final budget 30 days in advance, developed additional products and accumulated inventory of products in the off-season. At the Eastman Camera Works, seasonal use and abrupt seasonal style changes were factors that in this same company and under the same management prevented as good a stabilization as had been obtained at Kodak Park.

"Bausch & Lomb Optical Company, our second largest industry, manufacturers of eye glasses and spectacle frames, mountings, lenses and ophthalmic and scientific instruments, for several years has operated under a complete master budget system and control whereby co-ordination is obtained, through raw material purchases, production, labor, costs, expenses, sales, profit and loss, balance sheet and cash budget. The system is as automatic in its control as an automatic

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thermostatic heat control is in a house. Here is a Company whose monthly employment variations from average in 1914 was as high as 33.5% above and as low as 10% below, and by 1930 had reached a degree of stabilization where the high mark above average was 4.3 and the low mark was 4.2 below. At the end of four months of 1931 (I have mislaid later figures) they were within \$6,000 of an inventory control figure of \$3,600,000, were within \$1,000 of an overhead budget of \$2,500,000, were \$20,000 above their budgeted net profit, were within \$6,000 of their cash budget, and within 1.3% of their sales quota. Kodak and Bausch and Lomb are cited merely as two examples of general "stabilization" practice and achievement; other companies have as good record as theirs.

"Thus Rochester industry found itself at least reasonably stabilized in normal times and in the depression, and seemed to have done and to be doing everything possible to spread its available employment over as large a number of persons and families as possible."

Thus it will be seen from Mr. Crockett's remarks that stabilizing of industry can be effected if a real conscientious effort is made.

The unemployment benefit plan in Rochester is a non-contributory one and about twenty-one firms in Rochester have joined the plan which follows:

1. Employees Eligible

Employees will be eligible to benefits under this plan provided they have been in the employ of the company for a continuous period of not less than one year and have earnings of less than \$50.00 per week.

2. Unemployment Reserve Fund

An unemployment reserve fund will be created. The company will make an appropriation annually, beginning in 1931, of an amount which its experience and degree of stabilization indicate to be sufficient, up to 2% of the pay roll until the fund reaches a maximum equal to five annual appropriations. The income to be received from the investment of the fund will be added to the principal. Any payments made from the fund after the maximum is reached will be replaced by additional appropriations at the regular annual rate.

When after January 1, 1933, there is a prolonged period of unemployment and in the opinion of the management, the fund will be inadequate to take care of the benefits payable, the management may declare that an emergency exists. Upon this declaration of emergency, all officials and employees of the company who are not receiving unemployment benefits will be assessed 1% of their earnings. Deductions therefor will be made from the weekly or monthly pay, and such deductions will be added to the unemployment reserve fund. The company will appropriate into the fund an amount equal to these deductions in addition to the annual appropriations. The deductions will continue until the management declares that the emergency is over.

3. Effective Date of Plan

Benefits will become payable under the plan after January 1, 1933.

4. Control and Administration of the Plan

A committee will be appointed by the management to administer the plan. The decisions of this committee will be subject only to the general control and direction of the board of directors of the company.

5. Unemployment Benefits

The unemployment benefits shall be paid weekly at the rate of 60% of the average weekly earnings of the unemployment person,

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with a maximum of \$22.50 per week. The last three months of full time employment exclusive of overtime will be the period for determining the average earnings.

6. Waiting Period

Unemployment Benefits shall be payable to eligible employees after two continuous weeks of unemployment.

7. Maximum Period During which Benefits shall be Paid

The maximum number of weekly benefits to be paid during twelve consecutive months or during any one continuous period of lay-off shall depend upon the employee's length of service prior to such lay-off, as follows:

Length of Service	Benefits
1 yr. to 1½ yrs.	6 weeks
1½ " " 2 "	8 "
2 " " 3 "	10 "
3 " " 4 "	11 "
4 " " 5 "	12 "
5 " and over	13 "

8. Unemployment Benefit for Part Time Workers

If, on account of slack work, an employee is receiving reduced pay due either to transfer or to part time work, the difference between his actual earnings and the amount he would receive in benefits, under the plan were he wholly unemployed, shall be paid to him out of the unemployment reserve fund for the number of weeks specified in Paragraph 7. Such payments will cease when the employee has received an amount equal to the full unemployment benefits provided in paragraphs 5 and 7.

Summing Up

I have endeavored to show more or less briefly what has been done and what has been suggested in the matter of stabilization of employment and unemployment insurance.

The Swope plan to my mind is an admirable one when considered along with the stabilization effected under the Rochester plan, but I think that industry generally would not welcome such drastic plans at the present time. Moreover any plan to be wholly successful so far as the worker is concerned must be compulsory. Industry must realize that it must pay its just share in these matters, or suffer the consequences.

What these consequences may be I hesitate to say. Certainly the temper of the people in these trying times has been something to marvel at, but even so, the man who taps you on the shoulder and asks for the price of a cup of coffee does so with more self-assurance than he did a year ago. There is a real need for something. As I have said I do not think industry would welcome anything in the nature of the Swope plan. They must become educated to the general benefits to be derived from such a scheme but in the meantime industry, as in the case of Nero of old, continues to fiddle while Rome burns.

What then can be done? Industry should make an immediate study of the matter of stabilization of employment and the advantages to be gained in this respect through a modern budgeting system. The hours of labor should be reduced to some extent and possibly a minimum wage by occupations, by trades and by districts set up and some system of contributory unemployment insurance adopted. In this connection I am strongly attracted to the German plan. This is compulsory but is controlled by some-

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thing akin to a Commission. The payments and benefits are on a percentage basis and in short the plans appear to be easy of installment and operation. Further the contributions are 50% by the employee and 50% by the employer, the state paying nothing.

Plans should be made to make the contributions and benefits as near as possible to ensure the solvency of the fund. The law in regard to penalties for deliberate cheating should be severe and should be rigidly enforced. We have the mistakes made in the operations of other plans to guide us and we should profit by these mistakes. Unemployment is rife and to some extent is here to stay unless we devise stabilization plans to defeat it. When these plans fail there should be unemployment insurance to fall back on. Our one-cent clubs, our free meals, our unemployment rest rooms and our municipal relief methods well meant as they have been, have failed lamentably to even relieve the situation appreciably.

Is it not time we tried something on a national basis, something less pauperizing and something which will ensure the worker to some extent of a continuity of employment and when that fails something that will keep the wolf from the door without a lowering of his self-respect.

Perpetual Inventories and Stores Control

By D. R. PATTON, C.A., Montreal, Que.

(Before The General Accountants' Association, Montreal, Dec. 5, 1932)

WHEN capital is in the form of cash it is carefully protected, its custodians are held to a strict accounting, and receipts and disbursements are religiously safeguarded. When this capital is converted into materials there is the tendency to loose sight of the value of the investment and to tolerate practices that are wasteful, inefficient and needlessly extravagant.

If materials are not properly guarded and accounted for there will be a waste in the factory which will considerably reduce the profits of the concern. Such waste may occur (a) through needless spoilage encouraged by the freedom with which material is made available, or (b) through theft, which is made possible when material is left without proper supervision where it can be taken by any unauthorized person.

Accounting for materials must be based on the principle that materials which are purchased are worth as much as the money that was spent for them, and that as much care should be exercised in accounting for materials as in accounting for money.

The fundamental principles which should be observed in accounting for materials are:—

1. **Written orders**, duly authorized by a responsible official, should form the basis of all transactions involving the purchase, receipt, storage or consumption of materials.
2. **Perpetual Inventory**, should furnish continuous information as to the amount and value of each kind of material carried in stock.
3. **Safe Storage**, under proper supervision, should be provided for all material not immediately required in manufacturing.
4. **Ready knowledge of material used in production**—the kind and amount used in the operation of any department or in the production of any orders should be known.

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5. **Proof through controlling accounts** in the general ledger should be provided so that all cost and inventory accounts involving materials may be capable of verification.
6. **Two persons**, or more, should be concerned in all transactions involving materials in order that fraud or theft may be made impossible, except through collusion.

It is essential that the scheme of material accounting should make provision for perpetual inventory of materials and supplies and for an effective system of stores control. Control will be exercised both (a) from the point of view of production and production requirements and (b) for the maintenance and verification of Records.

The advantage of a proper system of perpetual inventory and stores control are:—

1. The company's investments in materials and supplies will be kept at a minimum, without the danger of under-stocking.
2. Materials will be available as production may require, and may be delivered to men and machines in the right amount at the right time.
3. Materials purchased will be scrutinized to see that they are in accordance with purchase specifications.
4. "Factory Housekeeping" will be efficient—there will be a place for everything and everything in its place. Materials will be stored systematically so that they may be easily located and readily accessible, and so that they will be protected against breakage and against climatic or other atmospheric conditions.
5. Theft, wastage, and loss will be prevented.
6. The cost of materials used in the various departments or on the various orders may be recorded and controlled.
7. The expensive and often unsatisfactory annual physical inventory will be eliminated. The annual shut-down for stock-taking will not be necessary. Perpetual inventory provides a continuous record of stock on hand, and permits testing and verification at convenient times throughout the year. Errors are caught without delay and theft or discrepancies in materials are located promptly. Slow moving and obsolete stock is brought to light.

Division of Material Handling

The securing and handling of material as it comes in and passes through to the processes of manufacture involve—

- (a) Purchasing
- (b) Receiving
- (c) Storing
- (d) Consumption
- (e) Accounting

The functional positions needed in an organization to carry out the above are:

- (a) Purchasing agent
- (b) Receiving Clerk
- (c) Storekeeper
- (d) Delivery Clerk
- (e) Accountant

Purchasing and Receiving

We are not able, in the time at our disposal to discuss the problems and routine connected with the purchasing of the merchandise and its handling in the receiving room but must pass on to the consideration of the storeroom and its functions.

PERPETUAL INVENTORIES AND STORES CONTROL

Storeroom Personnel

The storeroom personnel necessary to efficiently handle, safeguard, and account for materials should consist of:—

- (1) A storekeeper, who is in charge of the department.
- (2) A stores ledger clerk, who keeps the records of materials, receipts, issues and inventories, and,
- (3) An adequate and capable force of helpers.

The storekeeper must have personal energy and tact, and he must be able to control and direct his organization under high pressure. He is responsible that all materials entrusted to his care are placed in storage and held safely until required, that no materials are taken from stores without authorization by a proper stores requisition, and that the quantities on hand are verified at frequent intervals so that the physical inventory may be in continuous agreement with the recorded inventory shown by the stores ledger.

The stores ledger clerk is in charge of the stores ledger and is responsible for the correct keeping of records which deal with materials received and issued by the storeroom and with the inventory remaining on hand. Whether he is located in the office of the storekeeper or in the production department depends on the particular conditions.

Storeroom Arrangement and Equipment

The storeroom should be centrally and conveniently located, unless there are sub-storerooms on each floor or in each department. Adequate and properly equipped storage space should be provided so that materials may be efficiently cared for. Protection must be afforded against theft and against spoilage by the weather or temperature.

The storeroom should be kept under lock and key and only the members of the staff should have access to it. All unauthorized persons must be kept outside and out of contact with the stock at all times. Racks, bins and shelves should be placed so that the various classes or merchandise may be placed conveniently. Weighing and other equipment should be adequate to the requirements.

Material must be stored in an orderly and systematic manner to facilitate easy access and rapid handling. A system of numerical classification of accounts and materials may be applied. Under this system each account on the stores ledger is given a number and the same number is given to the corresponding item of material. The code numbers are arranged to identify the particular article and to designate the exact position in the storeroom in which it is kept.

Storeroom Routine

The routine involved in the operation of the storeroom and in the keeping of the records of materials may be divided into four phases:

1. Receiving and storing materials

Normally materials are received into the storeroom from the receiving clerk. These materials are accompanied by a copy of the receiving report which specifies the kind and quantity of each item and, if the account classification numbers are given, indicates the proper position in the storeroom. The materials are held in stock until such time as they are required by the factory.

Occasionally materials will be received from other sources, viz.:

- a. Returns from the factory. (Form #1)
- b. Scrap.
- c. Spoiled materials. (Form #2)
- d. Finished units from production department.

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Form No. 1

A. B. C. CORPORATION

Date S. R. No.

STORES RETURNED

The following materials have been returned to stores:

Credit — Production Order No. Standing Order No.

Charge Stores Account No.	Quantity	Unit	Size	Description	Unit Cost	Amount
---------------------------------	----------	------	------	-------------	--------------	--------

Returned by Received by

Form No. 2

A. B. C. CORPORATION

Date S. M. No.

SPOILED MATERIALS REPORT

The following spoiled materials have been returned to stores.

Quantity	Unit	Size	Description	Original Value	Spoilage Value
----------	------	------	-------------	-------------------	-------------------

DEBIT	CREDIT
Stores — Spoiled materials	Production Order No.
	or
Standing Order, Material Spoilage	Standing Order No.
Returned by	Received by

Form No. 3

A. B. C. CORPORATION

Req. No.

STORES REQUISITION

To Storekeeper Date 19..

Please deliver the following material to

Charge—Standing Order No. Production Order No.

Credit Stores Account No.

Quantity	Unit	Size	Description	Unit Cost	Amount
----------	------	------	-------------	-----------	--------

Approved Received by

Form No. 5

A. B. C. CORPORATION

BIN CARD

Article No. Name

Description

Unit..... Max..... Min.....

Date	Received	Issued	On hand	Date	Received	Issued	On hand
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A. B. C. CORPORATION

Form No. 4

STORES LEDGER

Article No.	Name	Description	Minimum	Unit
Location	Bin or Shelf No.	Maximum		
	Ordered	Received	Issued	Balance
Pur. Pur. Order	Pur. Order	Pur. Order	Req. Order	Quant. Quant.
Qty. Qty. Qty.	From Date	Order Qty	No. Qty	Price Amt.
	Stores			Date
	Req'd			Price
	etc.			Amt.
				Price
				Amt.

Form No. 6

A. B. C. CORPORATION

STORES INVENTORY REPORT

STORES INVENTORY REPORT									
To Storekeeper			S. I. R. No.						
Please take inventory of the following articles, on			Date						
			Signed						
			Difference						
			Short		Over				
			Quan.		Amount				
			Price		Amount				
			Short		Over				
			Quan.		Amount				
			Price		Amount				
			Short		Over				
			Quan.		Amount				
			Price		Amount				
			Short		Over				
			Quan.		Amount				
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			Quan.		Amount				
			Price		Amount				
			Short		Over				
			Quan.		Amount				
			Price		Amount				
			Short		Over				
			Quan.		Amount				
			Price		Amount				
			Short		Over				
			Quan.		Amount				
			Price		Amount				
			Short		Over				
			Quan.		Amount				
			Price		Amount				
			Short		Over				
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			Quan.		Amount				
			Price		Amount				
			Short		Over				
			Quan.		Amount				
			Price		Amount				
			Short		Over				

COST AND MANAGEMENT

2. Issuing materials

Materials should be issued from the storeroom only upon the presentation of a stores requisition (Form No. 3) authorizing such issue. These requisitions are formal orders on the storeroom requiring the issue (a) of materials for certain definite jobs, orders, or departments, or (b) of supplies chargeable to specified expense accounts. They originate under the authority of the heads of the departments concerned.

Upon presentation of a properly drawn stores requisition the materials are delivered to the place specified. A receipt is taken on one copy of the requisition which is then filed by the storekeeper as his authority for making the issue. The original goes to the stores ledger clerk who enters it on the stores ledger and on his summary of material consumed and then forwards it to the cost department where it is charged to the material section of the order concerned.

3. Accounting for materials

To correctly account for materials it is necessary to record in detail the quantity and value of (a) materials received into the storeroom, and (b) materials issued from the storeroom. The difference between these amounts shows the quantity and value of materials on hand. Since this information is available at any time the result is a "perpetual inventory".

In the processes of material accounting it is necessary to show (1) on the stores ledger, in detail, the amount and value of each kind of material on hand, and (2) on the general ledger, the total value of all materials on hand, both of which amounts must agree. This is accomplished by applying the principle of controlling accounts. For this purpose there is needed:—

(a) **A Stores Ledger.** Shows detailed information as to each kind of material carried in stock. The stores ledger is kept by one or more stores ledger clerks and has sections for materials (1) Received, (2) Issued, and (3) Balance. In addition it is usually advisable to have a section for (4) Materials ordered, and, if thought necessary, for (5) Materials reserved for orders already received, and (6) Materials available for new orders. It is usually in loose-leaf or card form, one sheet (Form No. 4) for each kind of material carried.

A simplified form, known as a bin card (Form No. 5) may be adopted. This contains the same information, but in quantities only. It is attached to the shelf or bin in which the material is located, and is entered by the storekeeper or his staff at the time that any transactions in materials are made.

In cases where quantities only are entered in the original record it is usually provided that a second detailed stores ledger is maintained in the cost department showing values as well as quantities. These two records must agree at all times with each other and with the stock actually on hand.

(b) **Summary of materials consumed and summary of scrap and materials**—These summaries are compiled during the month by the stores ledger clerk. At the close of the month the entries are summarized and forwarded to the accounting department to form the basis for the entry on the general ledger to record the net value of materials issued from stores.

(c) **Stores Controlling Accounts**—One or more controlling accounts, on the general ledger, show in total the information recorded in detail on the stores ledger. The value of materials purchased

ELECTRICAL POWER COSTS

for stores is secured from the vouchered invoices for purchased materials as entered in the voucher register; the value of materials issued is secured from the summaries of materials consumed and of scrap and spoiled materials as in (b) above.

4. Inventory Verification

The stores ledger record gives a perpetual inventory of the materials on hand and the quantities shown on the sheets should, at all times, agree with the actual stock in the storeroom. Unfortunately this is not always the case; errors do occur and it is necessary that a periodic verification be made. This verification may be made through the medium of the annual physical inventory. The annual inventory is, however, usually a source of difficulty—(a) it is usually necessary to close down all or a part of the plant during inventory period, (b) it is necessary to use persons who are not familiar with the material nor with the inventory requirements, (c) the period between inventories permits undisclosed pilfering and (d) all differences are located and adjusted only at the end of the year. It is, therefore, becoming recognized, that annual inventories are troublesome, inaccurate, and costly, and they are being replaced by a physical verification made continuously throughout the year. Each day or week certain items are selected for verification by the stores ledger clerk or some authorized official and requests are forwarded to the storekeeper by means of "Stores Inventory Reports" (Form No. 6). The articles are then weighed, measured or counted and entry made on the reports. The quantities as reported are compared with the stores ledger sheets, and differences are investigated and adjusted.

Co-operation

The success of a perpetual inventory and stores control system depends to a large degree upon the co-operation of all foremen and workers in the factory.

Foremen in charge of productive departments can help greatly by:

- a. Avoiding congestion in their departments.
- b. Protecting materials in their charge against spoilage and theft.
- c. Supervising the distribution of materials to the workmen.
- d. Ascertaining that the correct number of finished units are produced from the quantity of material drawn.
- e. Seeing that material is skilfully handled so that unnecessary scrap may not result.
- f. Seeing that the completed work is promptly and properly transferred to stores or to the next receiving department.

Control

Reduction in material cost demands accuracy of records, and thorough control of the materials themselves. It is essential, when differences are discovered, that the errors should be carefully investigated, that they should be rectified immediately, and that steps be taken to prevent recurrence.

Such steps should assure:

- (a) That goods are never received or issued without a proper written order
- (b) that all materials received and issued are carefully checked to make sure that quantities agree with those specified
- (c) that all transactions involving materials pass through the hands of at least two people
- (d) that no one has access to the stores except the storeroom staff
- (e) that physical tests are made periodically, differences carefully investigated and responsibility fixed.

Electrical Power Costs

BY A. N. SAINTE-MARIE

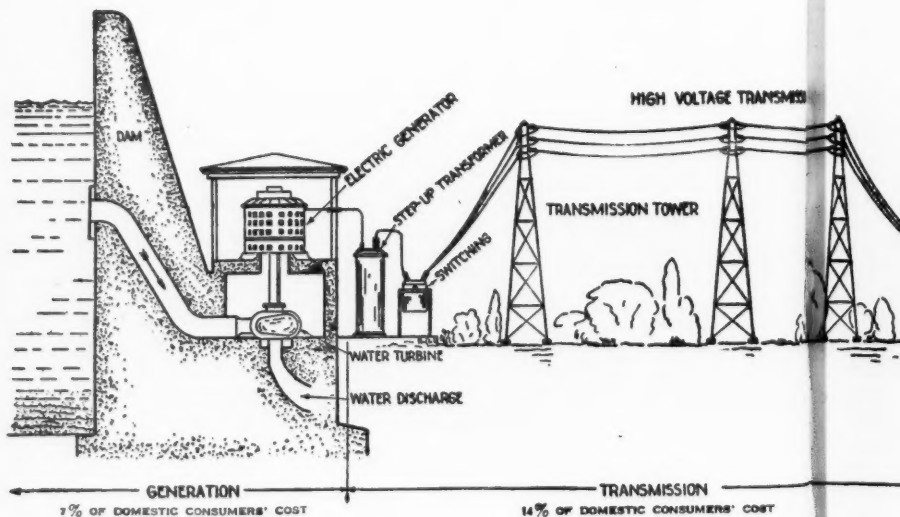
*Assistant Treasurer and Manager Public Relations, Montreal Light
Heat & Power Consolidated.*

(This summary of address before Montreal chapter, November 18, 1932, is reprinted from "Dual Service", published monthly by Montreal Light, Heat & Power Consolidated.)

WATER-POWER, as is often pointed out, is a gift of Divine Providence to the nation. Forests, coal mines, farm lands, fisheries, as is so seldom pointed out, are also gifts of Divine Providence to the nation. Yet although nobody expects to get lumber, coal or food without paying a price far above the actual cost of production, many people seem to think that hydro-electric power is in a class by itself and should be supplied for next to nothing.

This popular fallacy was discussed by A. N. Sainte-Marie, Assistant Treasurer and Public Relations Department Manager, on November 18th before the Canadian Society of Cost Accountants and Industrial Engineers at McGill University.

One reason for the controversy, explained Mr. Sainte-Marie, is that there is no such thing as "cost of electricity" in the same sense as "cost" of a pair of silk stockings or a fillet of sole. In the case of the latter articles the price of ten units is approximately ten times the price of one unit. In the case of electricity this is not true. The electric power business operates under conditions of production, of demand and of cost that are peculiar to it alone.



ELECTRICAL POWER COSTS

Since this fact is not generally understood, there is more fallacious thinking about electricity than about any other public service. Through ignorance, prejudice or political ambition, general statements are often made by unscrupulous demagogues and other loose thinkers, which are either wholly wrong or are half-truths.

These half-truths are all the more misleading, Mr. Saint-Marie pointed out because it appears such a simple affair to obtain electric light or power. One has only to flick a switch and presto! the room is illuminated, or the motor begins to turn over.

All that is required, according to popular conception, is to throw an embankment across a stream and string a few wires, and the water at one end becomes electricity at the other. The attitude resembles that of an old Griffintown resident, Mike Connolly, who went to that famous former mayor of Montreal, Hon. "Jimmy" McShane, to complain about a bill from the city for water service.

"Surely," said Mike eloquently, "it isn't for the likes of you, Mr. Mayor, to make me pay for what the good God gives to us all as a free gift."

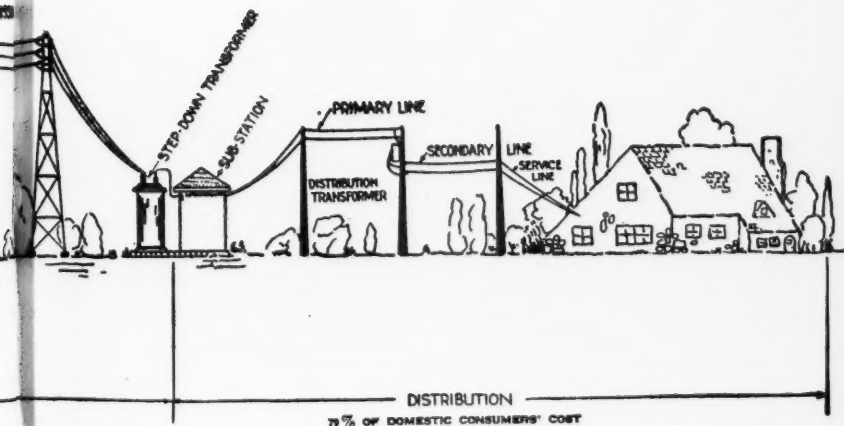
Hon. Jimmy was visibly impressed.

"Never thought of that, Mike," he said. "Here, I'll fix you up so you'll never have to pay another cent for the water you use." And he sat down and wrote out a brief note.

The note was addressed to the Superintendent of the Water-works, and read:

"This is your authority to allow Mr. Michael Connolly to take as many pails of water as he may require from the reservoir, without any charge being made for same."

Mike took the hint. It's not the water—"God's free gift"—that costs money; it's the construction, maintenance and operation of



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elaborate and expensive distribution equipment that brings the bills up. So it is with electricity.

Only a small part of the cost of electric service is attributable to the generation of "raw" electricity at the power house. The largest proportion of the "delivery" price is incurred after the electricity is generated.

Here the speaker made use of an enlargement of the accompanying diagram. As will be seen, this drawing clearly indicates the various steps electric power takes in its passage from water-head to home, and it also shows the proportionate cost of each operation.

After explaining the details of contributing costs by figures scarcely intelligible to the layman but perfectly clear to his audience of accountants, Mr. Sainte-Marie summed up his calculations in the statement that generation expense is only seven per cent of the total cost of electric service. Transmission contributes fourteen per cent, while the remaining seventy-nine per cent is chargeable to distribution.

Since proportions vary exceedingly according to local conditions (no two points are comparable in every detail as far as electric service expense is concerned) Mr. Sainte-Marie explained that the figures used do not apply exactly to any one specific system. They are based, he said, on data taken from several localities to give average results for a large-scale hydro-electric system. Local conditions may vary the ratio of the elements in any given plant, but in any case the cost of generation is a mere fraction of the total.

Here, recurring for a moment to his original point regarding the "God's free gift" fallacy, the speaker reminded his hearers that in Montreal, federal, provincial and municipal taxation alone totals more than the actual cost of generating electric power.

As everyone knows, Federal Income Tax (by far the largest single item of the tax total) is applied to privately-owned utility companies while publicly-owned systems are exempt. If the politically-ambitious demagogues who harp the "free-gift" string realize that their pet public enterprises have an advantage which about equals the generation cost, and still are unable to compete successfully with private ownership, there might be less tub-thumping on the subject of electricity!

Standard Cost and Budgetary Control

By CLAUDE O. RAINEY,

Trico Products Corporation, Buffalo, N. Y.

(Before Hamilton Chapter, at St. Catharines, Ont, November 23, 1932)

WE NEED but turn back a few years in the history of our profession to grasp the true significance of the rapid progress that has been made in the development of standard cost. The word "standard" has taken on, to its distinct disadvantage, a rather hallowed meaning principally because of the emphasis that has been placed upon it by the leaders in professional thought. It is not a cure-all as too many have been led to believe. Yet it has many advantages that are beyond the average cost system. It was perhaps necessarily painted as a super system of control by those who

STANDARD COST AND BUDGETARY CONTROL

were instrumental in its developments, as it usually takes a bolt of lightning to change those of us who cling to the old and abhor the new. It is a good thing that we are rather slow in accepting new ideas as those of us who have been instrumental in experimenting with revolutionary developments know there is many a slip between the lip and the cup, and that it is good to wait sometimes until some of the bugs are ironed out.

Changing Problems of Costs

Cost accounting has had a peculiar and varied growth. It was first developed to take care of a sales need. Management wanted to know what their actual manufacturing costs were in order to establish sales prices that would result in reasonable profit. In the beginning costs were simple as there were only two principal factors, material and labor, but with mounting capital expenditures the hidden factor became too great and as a result cost accounting came into existence.

I recall operating a cost system some fifteen years ago that was installed by a nationally known organization. This particular system provided a beautiful office record. It provided the double entry method to the ninth degree and was generally known to be the best attainable. It was a credit to the accounting firm making the installation and likewise to the business that was progressive enough to go to the expense of making such an installation.

That system today is absolutely worthless in the light of present day developments. That is, if necessary changes had not been made to keep it up to date, I doubt very much if engineers on the job today would recognize the system as being a product of their organization. I make this reference to more vividly picture to you the changes that have taken place during the last decade. This emphasizes all the more the need of professional organizations that make possible the dissemination of professional developments.

The day in which human effort of whatever calibre will be measured, is here, whether we like it or not, and the sooner that we as individuals get into tune with that development, the better it will be for ourselves and for the industries that we represent. We have seen, during the last decade, the industrial battle of the ages, and today that battle continues on a thousand fronts that heretofore were untouched and unspoiled. The power of human energy was brought forcefully to our attention during the World War and those of us who were but lads at the time were amazed with its spectacular accomplishment. Our every energy has since been spent in learning to master and to improve the product of scientific research. Have we succeeded, and if so, to what degree has it benefited mankind? That same great force of energy could not, after once set into motion, be calmed with a single stroke of the hand, and naturally when diverted from the task of destroying human life on the battle front, it turned to industry.

The Accountant as an Interpreter of Figures

The mechanization of industry is the result and today we find the accountant filling a position that he never dreamed of filling before. The accountant now finds himself associated with an entirely different group of men. He is no longer merely a recorder of figures, but instead has become the interpreter, the advisor and the forecaster.

At this point I wish to mention a few remarks that were made by Mr. Alexander Wall, secretary-treasurer of the Robert Morris Associates, who recently spoke to the Buffalo Chapter of the National

COST AND MANAGEMENT

Association of Cost Accountants on the subject, "Statement Trends as an aid to Management."

After explaining the nature of the work of the Robert Morris Associates and after calling to the public accountants' attention some of the points that are occasionally overlooked in the preparation of the statements that they certify, he touched on a subject that I feel fits into the subject matter that we are discussing this evening.

Mr. Wall's thought was that the bankers of tomorrow are going to be more concerned about your budget procedure, in that when you go to your bank on the first of March with a very nicely prepared financial statement that reflects a beautiful condition as of December 31st, and ask for a \$100,000 loan on the strength of it, you may be surprised to find that he is not so receptive or enthusiastic and that you may be asked some very embarrassing questions, such as, "What has your business done since December 1st, and what do you expect to be doing in November?" In other words are you budgeting your operations and if so, are you keeping within certain limits of the expected. You may call it credit forecasting.

Mr. Wall also touched upon another point that is of interest to cost accountants. He stated that bankers are getting away to some extent from the quick asset method of measuring our financial responsibility and have turned to the ratio method. They are becoming more concerned about the standards of measurement that we set up within our business, and want to know how close our operations are coming to those units of measurement.

It is my understanding that the bankers have gone a step farther and have set up trade standards. These standards are being used to measure your and my business, whether we like it or not, and what are we going to do about it. There is only one thing to do and that is to so standardize your operations that you will have no fear of their yard stick.

The Industrial Engineer

In this new environment we find the accountant, through the operation of standard cost, working very closely with the industrial engineer and in doing so we observe that he is finding many valuable uses for the information that has heretofore, after having served its historic function, been neatly filed away in a vault. When stepping into a vault where such records are kept, I often think of the tier upon tier of cost ledgers as monuments erected to commemorate our errors.

Who is this fellow, the industrial engineer? Why have we become such great comrades? He was unheard of back in the days when we controllers, general accountants, cost accountants, office managers, and what not, were but ordinary bookkeepers. Men like Taylor, Emerson, and a number of other far-seeing men blazed the trail in the development of a profession that has made itself indispensable in industry. The contact that the industrial engineer and the accountant has made during the past few years has been extremely beneficial to both parties, and has resulted in the saving of millions of dollars to industry.

The advent of standard cost has focused the spot light on a medium of measurement that is universal in its application. Standard time originally calculated for the purpose of establishing wage incentives is today being used for many purposes other than for which it was originally intended. The accountant, whether he be cost or general, who has not made a thorough study of standards and physical

STANDARD COST AND BUDGETARY CONTROL

conditions, has no doubt found himself seriously limited, and so far as the future is concerned that limitation is bound to grow.

The Metropolitan Life Insurance Company through its Policyholders' Service Bureau prepared a report on "Budget Procedure Through Standard Cost" in 1929 and again in 1932. This report takes a specific example and carries it through the entry requirements in a standard cost set-up.

I do not wish to spend the time this evening going over a lot of figures that need intensive study in order to be properly understood, so I am going to read the introductory part of the report and ask that you write to the Metropolitan Life Insurance Company for a copy if you are interested.

Quoting from The Metropolitan Life Insurance Company's report on "Budget Procedure Through Standard Cost" prepared by the Policyholders' Service Bureau:

"There has been a pronounced tendency during the last decade for many manufacturers to adopt some form of standard costs. Not only has this been manifested through the action of individual concerns, but also through the introduction by entire industries of uniform standard cost procedures. These systems are claimed to have caused substantial economies, both through better control over operations and through a more healthy competitive condition resulting from intelligent use of reliable operating and cost data.

"The evolution of standard cost is described as follows by a recent contributor to the Journal of Accountancy:

"Cost accountants developed cost accounting in answer to a demand of the industries for a means whereby they could find and record their actual costs of manufacture. After finding their costs, they realized this was not enough—they must control costs—and the result was the development of standard costs."

"The purpose of this report is to present in simplified form the standard practices of one concern that operates successfully under standard costs. The illustration is presented through the courtesy of Robert Gair Company, manufacturers of folding boxes, paperboard and corrugated boxes. It is hoped that some phases of the system may be adaptable to the uses of other concerns.

"The underlying theme of the Robert Gair Company budget is that there are certain responsibilities placed upon the executive and the aim of the accounting procedure is to give the accounting facts in terms of these responsibilities. Relatively few systems of accounting provide this information. This standard cost procedure likewise simplified the accounting methods considerably."

Standards of Performance

My first thought after learning the principal involved in standard cost was what can I do—our shop is not operating on a basis that will permit such control. No doubt this same staggering thought has come to you during this discussion and that the task appears to be too great to think of undertaking it. I agree that it does appear to be a difficult task when looking at it from a far distance, but when we know what we want and give some thought to the various elements, it is not so difficult or at most not impossible.

COST AND MANAGEMENT

We had a time study department and had developed the piece work method of wage payment to a point where it was working smoothly. However, I found that the standard time required to produce a designated quantity had not been set up to serve any purpose other than to assist in establishing the rate. Our first job then was to set up standards on every operation in the plant. This was not so difficult as every job on which a piece work rate had been established required only a simple calculation. The big task was to get jobs on which no rates had been established. This required some two years of intensive work but was finally completed sufficient to permit our going ahead in the office. As a bit of warning I would suggest that you not become so anxious to complete the work that you fail to cover the shop end of it thoroughly. If there are any of you here who do not have an incentive wage payment method in operation and are looking for some practical suggestions, I would suggest that you refer to the September 15, 1932 Bulletin, published by the National Association of Cost Accountants and read the article on page 115 entitled "Time Study and Its Relation to the Piece Rate Method of Wage Payment." This article was prepared by our Standards Department and is practical to the extent that it is our standard set of instructions.

e #2

PART OR ORDER NO.	OPER. NO.	BURDEN NO.	MACH. NO.	MACH. HRS.	PIECES SCRAP	PIECES REJECT	PIECES GOOD	PIECES TOTAL
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8
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12	12	12	12	12	12	12	12	12
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15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20
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24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26	26
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45	45	45	45	45	45	45	45	45
46	46	46	46	46	46	46	46	46
47	47	47	47	47	47	47	47	47
48	48	48	48	48	48	48	48	48
49	49	49	49	49	49	49	49	49
50	50	50	50	50	50	50	50	50
51	51	51	51	51	51	51	51	51
52	52	52	52					

**STD. TIME
PER 100**

PROD	MAINT.	INDIRECT	HOURS	TOT. AMT.
------	--------	----------	-------	-----------

TRICO PRODUCTS CORP.

Mo.		Da.		Dpt.		Clock No.			
9	9	9	9	9	9	9	9	9	9
28	29	30	31	32	33	34	35	36	38

STANDARD COST AND BUDGETARY CONTROL

Using the Standards

Having established standards of performance, the next step is to so design your system as to make vital the continual use of the information. We found it advisable, in order to get the required speed accuracy, to build an entire system around tabulating equipment. Tabulating on a piece meal basis was not entirely satisfactory, but when we observed its many advantages we decided to build our system around the machine and not the machine around the system. This made the installation extremely flexible and as a result we have today our Pay Roll, Cost, Production requirements, Stock control, and Sales analysis on this type of equipment.

The operation layout (Figure #1) that is prepared by the Engineering Department records the standard time per one hundred pieces along with other information of an engineering nature. A copy of the operation layout is immediately forwarded to all departments that have anything to do with the fabrication of the part. This makes available the information needed by the timekeeper when distributing the employee's time.

We originated a form (Figure #2) for use in this connection that I wish to explain to you more fully. This card is known as a master-payroll card. It is simple in design and serves in our factory accounting scheme a three-fold purpose.

Day Rate
Office Use Only

Date _____

e #2

[illegible]

COST AND MANAGEMENT

(1) The form takes the place of a clock card, as you will notice at the extreme right end a space for ringing in and out. The card originates in the pay roll department where the clock number, name, and code is put on by use of the addressograph. It is then forwarded to the departmental timekeeper the night preceeding the day it is used, where it is racked in numerical order.

(2) The form provides for distribution of time. The timekeeper pulls the cards after all have rung in, and starts the daily distribution. All information on the face of the card is filled in by the timekeeper. You will notice among other information, the standard time per 100 pieces. The standard time taken from the operation layout is multiplied times the number of pieces produced during the time recorded in the "hours taken" column. This multiplication gives the hours allowed, which is recorded in the "hours allowed" column. You now have the hours allowed or standard time for comparison with the actual time. The card with the completed distribution is forwarded to the pay roll department, where it is checked for accuracy.

(3) The form provides for a grouping of Productive, Maintenance, and Indirect Labor at its source. This breakdown is made in the Pay Roll Department and must check with the distribution made by the timekeeper. This gives us a double check not only in extension but also in class distribution, and is a decided factor in making a successful application of tabulating equipment to payroll. The card goes to the tabulating department in this form, where the lower left hand information is punched on the card and where the distribution data is punched on another card known as "Labor Distribution."

The value of this set-up is due, in a large measure, to the speed with which the information is available. The master pay roll card is simple in design, yet it is the nucleus of the whole factory accounting set up. Budgets, regardless of how accurate they may be, are not worth the paper they are written on unless they are woven into the very heart of the system and are controlled as skillfully as possible.

The productive, maintenance and indirect labor information forms the basis for a weekly payroll analysis that goes to the president and factory superintendent. The same information in a more detailed form (Form #3) goes to the foremen in charge of each department.

A foreman working on a budget is not satisfied with the mere statement that he was over or under so much in his maintenance or indirect expense last month as compared with his production. To him last month is past and there is nothing that he can do about it. Foremen are impulsive and have been trained to act quickly, as they deal with moving elements; men whose time is valuable must be kept busy; production must be speeded up; expensive machinery is down for repair and needs attention. In view of all this it is only natural that he dreads dealing with cold abstract figures that within themselves have no appeal. Our recognition of this element, when dealing with the foreman, will help us tremendously in our effort to sell him on standard cost. Some times I think we are too cold and have not learned the art of salesmanship sufficient to accomplish the results that should be accomplished with the vital information that is at our disposal. When dealing with the foreman you must meet him on the level and be very careful that you do not over-state your own ability.

The analysis as illustrated in Figure #3 gives to the foreman something to work with. If his expense is too high his employees are using more gloves or more of some other known item than they should, and he knows where to strike. He must also have this information, not two weeks after the close of a month's business, but

AN EXTENSION OF COST ACCOUNTING

Fig. #1

PARTS OPERATION SHEET						Part No.
Part Name		Material				
Size of Mat.		Weight Length	Lb. Ft.	Per 1000 Pcs.		
Oper. No.	Operation	Dept. No.	Burden or Operators Machine	No. of male fem.	Class no.	Die or Tool no.
					Time Study Ser. no.	Pc's per St'd hr.
					100 pieces	Piece work rate Per 100 pieces
No. of sheets	Sheet no.	Supercedes Sheet no.			of	Date
Form #3						
DEPARTMENT						
FOREMAN						
WEEK ENDING						
MATERIAL						
BUDGET ACTUAL	PROD.	MAINT.	INDIRECT	TOTAL	BUDGET ACTUAL	LABOR
Over or Under					PROD.	MAINT.
					INDIRECT	TOTAL
ANALYSIS OF INDIRECT MATERIALS						
ITEM	BUDGET	ACTUAL	Over or Under	ANALYSIS OF INDIRECT LABOR	BUDGET	ACTUAL
				ACCOUNT	Over or Under	

COST AND MANAGEMENT

at several intervals during the month. Once a week is none to frequent.

The labor analysis is, when requested, supplied in a different form. The name of the employee is listed along with the description of the work performed. This is easy to get as it requires only the sorting to employee number and listing.

Daily Efficiency Report

Last but not least, by no means, is the daily Efficiency Report.

Form #4

EFFICIENCY REPORT

Clock Number	Lbr Cl	Pre- fix	Part No.	Oper. No.	Burden Center	Hours Allowed	Hours Taken

The proper function of this report is to give to the foreman the operating efficiency of each man under his supervision. You will notice the hours allowed for standard time is listed along with the hours taken, and that it is comparable by employee, by part, and by operation. In supplying this information, we do not burden the foreman with a lot of detail. He gets only the list of employees falling below standard, and then only a small portion of them are marked for attention. The time study supervisor likewise gets a list of all employees running above standard, a small portion of which are marked for his attention.

You can readily see without my going into detail what a weapon this information becomes to the foreman and the time study supervisor.

In summary, I wish particularly to again call your attention to the very complete illustrative set up that has been published by the Metropolitan Life Insurance Company. It would be time lost for me to work up a similar set up when this is available, and likewise to attempt to explain this verbally to you, as it requires full study in order to get the desired results.

I have followed thru in my attempt to give you some simple practical methods that may of assistance to you in organizing your factory accounts. The forms submitted illustrate the ground work in the operation of a successful installation. These forms may or may not be practical in your business, but in either case, I hope they convey the thought that I am trying to get across.

There is one point that I wish to leave with you, and that is that the simplicity of a set up often means success where otherwise failure is unavoidable.

I cannot over-emphasize the need for an intensive study of your factory set up and likewise the adaptability of the product that you manufacture. There is no ready made system of standards that will completely solve your problem, but there is one thing I am sure of, and that is if you think thru your problem and learn thoroughly the principle involved in standard cost, you will find that standard time is very broad in its scope and that its adaptation will be applicable to your needs in most instances. The physical conditions in each installation may differ, yet time as a unit of measurement remains the same.

AN EXTENSION OF COST ACCOUNTING

AN EXTENSION OF COST ACCOUNTING

(From the Montreal Gazette, January 3, 1933)

IS COST accountancy—the monthly tabulation of “revenue and expenditure” accounts—to make its way, soon, into the Recorder’s Court?

To date, court revenue has been calculated upon the basis of daily fines and costs paid Four times a year, the total was added up, and credited to the city of Montreal. As against this, expenditures for prosecution were also added up and, annually, deducted from the total revenue of the court. The balance was inscribed in glowing letters in the annual report of Recorder’s Court. But at the end of each year, certain prisoners before the court on varied charges—mostly in connection with morality cases—had their bail credited to court revenue. The results was that in February of each year City Hall accountants have found out that the Recorder’s Court profits for the year were considerably lower than originally reported.

The bail deposited by these prisoners averaged, for the most part, \$100 each. Usually, there are some 150 such prisoners. A total of some \$15,000 is thus credited to “revenue,” when, in reality it represents “temporary” revenue, assuming that in each of the 150 morality cases convictions will be registered.

Following the report of the independent auditors who, at the instigation of the Gabias administration, conducted a minute probe into municipal finances and, at its close, recommended the adoption of a system of sound cost accountancy in many of the city’s departments, Director Fernand Dufresne, head of the Montreal Police Department, and head, too, of the Recorder’s Court, is determined to see to it that the annual reports of the Recorder’s Court will, in future, show real revenue rather than “assumed revenue.”

In 1931, it is known, the annual revenue of the Recorder’s Court was calculated at some \$845,000, one-half of which went to the Quebec Government. This report was handed down on December 28. In February, it was discovered that the real revenue of the court came to about \$839,000 some \$6,000 having represented bail in morality cases which had been deposited after December 25 of that year. But Quebec’s cheque for some \$422,500 had already been mailed. A letter was hastily dispatched to Quebec’s Department of Revenue. The error was headlined. Unfortunately, the amount had already been acknowledged by Quebec, and, as yet, no credit has been decreed for Montreal.

BACK COPIES WANTED

Our supply of the following numbers of Cost and Management is exhausted, and as requests for back copies are frequently received, we will appreciate receiving these copies from members who may not wish to keep them longer:

May, 1928, December, 1929, February, 1931, March, 1931, April, 1931, November, 1931, January, 1932, March, 1932.

Send to the Society’s office, 81 Victoria St., Toronto.

CHAPTER NOTES

MONTREAL

Reported by R. Schurman, C.A. Secretary.

The members of the Montreal Chapter and their friends to the number of about 150, filled the Hall of the McGill Union, on Wednesday, February 1st., and showed that they thoroughly believed in the old maxim "All work and no play....."

Chairman Masterson, with the able assistance of H. W. Blunt and D. R. Patton, put on a series of boxing bouts by Coach Bert Light's fighters entered in the McGill Boxing Competition. These were no mere exhibition games; they were a part of the elimination series leading to the finals, the winners of the bouts earning the right to fight in the inter-faculty meet, and also in the meets with Varsity and Queens' which take place on February 17th and 18th.

Chairman Masterson rose to the occasion again with a "tasty" boost for everyone present which was heartily appreciated. Smokes there were in abundance and some of the members called for Maurice Chevalier to sweep the clouds away. There were wonderful "eats" and a Cabaret Show which was worth twice the price of admission.

Director Blunt has become so efficient in the selection of choice entertainment talent, it would almost appear as if he had a good stand-in with George Rotsky. On this occasion his efforts were ably assisted by Director Patton, who has had plenty of experience in staging delightful entertainments at "Old McGill." Their performers made one feel aware that all is not old that listens. Tap dancers hit the floor; yodlers and tenors touched the ceiling; comedians tickled the funny bones; accordion, dulcimer and piano blended in musical numbers which drove away all that was blue except the smoke. The Directors had some misgivings as to whether the members would turn out for an evening of this kind. Now they know that it proved one of the most popular events on the programme this season.

The next date scheduled is that of February 10th, when Messrs. Gratton, Dufresne and Farquharson will lead in a discussion of some industrial problems; and on February 24th Past-President Lorenzo Belanger will address the members on the economics of over-head.

Three meetings in one month may seem like following up our problems too assiduously, but these are days of depression and the members are intensely interested. With such a strong programme there is good reason for Chapter popularity.

Our local newspapers contain the following interesting announcement regarding our versatile and popular President, Mr. L. A. Peto:

"Peto Again Heads
National Soccer."

"National Soccer League delegates paid a neat tribute to last year's officers when they re-elected them for another year, at the Annual Meeting of the League in the Windsor Hotel here Satur-

CHAPTERS NOTES

day. L. A. Peto, Montreal, will again act as President."—Gazette, January 30, 1933.

The Duke of Wellington is reported to have said that the battle of Waterloo was won on the playing fields of Eton. We like to believe that President Peto is right now helping to kick the tar out of this battle of depression, "somewhere" in the Soccer League.

VANCOUVER

Reported by Maurice Willis, Secretary

As the Executives and the members of the Vancouver Chapter were busy clearing up the year's work, and maybe looking for profits, it was not possible to arrange a regular meeting.

But those members who turned up on January 24th at the Associated Dairies were shown the mysteries of the Hollerith Tabulating machine under the guidance of Mr. E. A. Cowley of the International Business Machines.

The subject had been "Methods of procuring labor costs" and to finish up the evening also to show us the 'punch card' system as brought up during the course of the lecture Mr. G. R. Baird, our Chairman, invited us into the tabulating department of the Associated Dairies.

Like a conjurer, Mr. Cowley took a stack of cards and within a few minutes all the 'Raw Milk', 'Cream' etc. were in their different boxes.

It looked simple enough, and was very interesting.

TORONTO

Since the last report of Toronto Chapter's activities, published in November Cost and Management, the Chapter has held three meetings on topics of practical interest to the members.

On November 21st, the speaker was J. Arrowsmith, of Canadian Kodak Co. Ltd., and his subject "Control of Steam Power Cost" which immediately followed the discussion of electrical power costs at the October meeting. Mr. Arrowsmith led his listeners through a rather technical subject with ease, though some of us who are not in close touch with the engineering side of business may have failed to follow the points in all their details. A set of lantern slides which, being presented under such auspices as Canadian Kodak could not fail to appear to perfection, illustrated his address. We hope to see this address published.

On December 12th, J. C. O'Neil, of Goodyear Tire and Rubber Co. of Canada, Ltd., spoke on "Capital Assets". Though Toronto Chapter has heard discussions of this important subject before, Mr. O'Neil's talk was certainly one of the most comprehensive and interesting. Some members who represent smaller companies have expressed the feeling that their methods cannot go into such detail, but all those present certainly enjoyed benefits from the talk.

On January 16th our Chapter went a little further afield, for a talk on "Economic Security for the Wage Earner", by H. M. Cassidy, B.A., Ph.D., assistant professor of Social Science, University of Toronto. When the season's program was planned, it was felt that the problem of unemployment would be acute, and, as it happened,

COST AND MANAGEMENT

the date fixed for this meeting was very appropriate. Professor Cassidy set forth very clearly the hazards of accident, unemployment, etc., to which the industrial worker is exposed, and he reviewed attempts to provide protection through benefit funds and other means. He expressed his opinion that company plans could not be secure or far-reaching enough to meet the requirements, and that state unemployment insurance was the logical solution, but in view of the dangers, it must be carefully examined before any step is taken.

The speaker for the February 20th meeting is C. LaFerle, of the Robert Simpson Co. Ltd., Toronto, who will speak on Traffic Problems and Distribution Costs, on which he is an outstanding authority.

REFERENCE LITERATURE

RECEIVED IN JANUARY

DEPRECIATION Reconsidered. The Accountants' Journal, January.

Baking Costs. National Association of Cost Accountants' Bulletin, January 15.

Order-Handling and Order-Filling Cost Rates, Development of Standard. National Association of Cost Accountants' Bulletin, January 15.

Repairs, Accounting for. National Association of Cost Accountants' Bulletin, January 1.

Maintenance, Accounting for. National Association of Cost Accountants' Bulletin, January 1.

Cost Accountant, The Function of the. The Cost Accountant, December.

Costing, Short Cuts in. The Cost Accountant, December.

Gas Companies, Lease Rentals and Well Drilling of Natural. Journal of Accountancy, January.

Brokerage, Accounting in Commodity. The American Accountant, January.

Budgetary Control Chart (in French). Bulletin of International Management Institute, December.

MONTREAL FINANCIAL SCHEME INCLUDES COSTING OF CITY SERVICES

(From the Montreal Gazette, Dec. 27, 1932)

As a result of the independent audit made at the City Hall during the past seven months and recommendations by the auditors, the following changes in municipal affairs are foreseen:

1.—The annual budget will be prepared for voting by the City Council during April and not later than April 30. May 1 will become "tax day" for payment of general property, school, special and local improvement taxes. Water tax is likely to remain collectible September 1, because May moving affects so many tenants. In general, the city will pay its way during the May-to-May tax year, start collecting taxes the moment they are due, throw over the existing system of voting the budget for December 31, and eliminate the annual \$15,000,000 loan in anticipation of revenue which costs taxpayers \$700,000 a year. How to change from old to new has to be decided;

MONTREAL FINANCIAL SCHEME INCLUDES COSTING OF CITY SERVICES

the first year may see instalment payments so that proprietors will not be overburdened by backing up "tax day."

2.—Montreal election day will be moved. Instead of the first Monday in April, it may be the first Monday in March. The idea is that no outgoing administration should get its hands on a 12-month budget and spend recklessly for the first three months of the year in an effort to secure re-election. As it is, the annual budget is voted December 31, for the first three months ensuing, that budget of nearly \$40,000,000 is at the mercy of an administration which is seeking re-election. One year, not so long ago, snow-cleaning cost about \$1,000,000 more than was necessary, just because retiring aldermen had "friends" necessary, not for snow-cleaning but for election purposes. And this very year of 1932, the late Houde administration appropriated not far short of \$6,000,000 in the first three months, leaving the incoming administration with just over \$3,000,000 for the remaining nine months of the year. Under the new system, the City Hall administration will retire on the tenth month of the tax year, and the first duty of the new Executive Committee and City Council will be to arrange how it will spend the forthcoming tax year's revenues.

3.—The post of city treasurer will be abolished, and replaced by a Director of Finance who will control not only the present treasurer's personnel but that of the comptroller. Thus treasury services will be centralized under one officer. The office of city comptroller and auditor will disappear, to be replaced by the post of city auditor who will hold his position directly from the City Council just as the comptroller and auditor do today.

—Great changes of an internal nature will be made to instal cost accounting systems speed up accounting, stop over-expenditure on credits voted (more than \$250,000 has been discovered in the audit), and reorganize the municipal stores and yards where supervision is costing abnormally and prices of work to other city departments are absurd.

5.—The form of budget will be placed on an entirely new basis, so that the city nevermore will fancy it has a surplus of about \$1,500,000 when it really has a deficit of about the same size.

I stopped at the grocery counter and took out the list my wife had given me. "I want," I said to the clerk, "a loaf of Mumsie's Bread, a package of Krunchies, some Goody Sanny Spread, Ole Mammy's 'Lasses, Orange Puddy, Bransie Buns, and a pound of Aunty Annie's Sugar Can'y, Bitsey-bite size."

"Sorry, no Krunchies. How about Krinkly Krisp, Oatsies, Maltsey Wheats, Ricelets, Cornsie Ponesies, or Wheetums?"

"Wheetums, then."

"Anything else? Tootsies, Tatory Chips, Cheesie Weesies, or Gingie Bits, Itsey Cakes, Sweetsie Toofums, or Dramma's Doughnies?"

"Tan't det anysinn' else," I said, toddling toward the meat department to look for teeny weensies and a leg of lambikins.

* * * *

Englishman: "Well, Pat, how are things going?"

Pat: "Terrible, shtarvation's starin' me in the face."

Englishman: "That's terrible for both of you."

COST AND MANAGEMENT

TO STUDY CHEESE FACTORY COSTS

Ottawa, Dec. 3.—The Dominion Department of Agriculture, in co-operation with the Provinces of Ontario and Quebec, is undertaking an economic survey of the management problems and costs of operating cheese factories in the two provinces. The work is being handled on a co-operative basis suggested at a conference held in Toronto by Federal and Provincial agricultural leaders under the chairmanship of Hon. Robert Weir, Dominion Minister of Agriculture.

The Dominion Department of Agriculture is represented by the economics branch, Dr. J. F. Booth, commissioner, and the dairy branch, J. F. Singleton, commissioner. The Ontario Department is being represented by Geo. H. Barr, Dairy Commissioner, and Professor F. C. Hart, economics division of the Ontario Agricultural College. H. C. Bois, director of rural economics, and Geo. Cayer, general inspector of butter and cheese factories, are representing Quebec.

THE TREND OF PRODUCTION COSTS

Commodity prices, as measured by the Dominion Bureau of Statistics index number which is based on the year 1926, declined from 64.8 in November to 64.0 in December. The following is a comparison by main groups.

	Dec. 1931	Nov. 1932	Dec. 1932
Foods, beverages & tobacco	65.4	60.1	59.3
Other consumers' goods	79.0	78.3	78.2
All consumers' goods	73.6	71.0	70.6
Producers' equipment	91.1	86.0	87.7
Building & construction materials	79.3	77.1	76.2
Manufacturers' materials	61.6	52.5	50.8
All producers' materials	64.8	57.0	55.4
All producers' goods	67.4	59.9	58.6
All commodities	70.4	64.8	64.0

The principal declines in December were in the following: dried fruits, foreign fresh fruits, grains, sugar, hides and skins, crushed stone. There were no important advances.

"Darling," she said, "will you love me when I grow old and ugly?"

"Dearest," he replied tenderly, "you may grow older, but you will never grow uglier."

* * * *

There is a Company in China known as the Sze You Life. This is not a joke.

* * * *

"Was your old man in comfortable circumstances when he died?"

"I hae me doots. E'e was 'arf under a train."

* * * *

Nit: What's the idea of the crowd at church?

Wit: A traveling man is confessing his sins.

